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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking into Policies to
Promote a Partnership Framework between
Energy Investor Owned Utilities and the
Water Sector to Promote Water-Energy Nexus
Programs.

R.13-12-011
(Filed December 19, 2013)

**OPENING COMMENTS OF PACIFIC GAS AND ELECTRIC
COMPANY (U39M) IN RESPONSE TO ASSIGNED COMMISSIONER'S
RULING ENTERING WORKSHOP REPORTS INTO THE RECORD
AND SEEKING COMMENTS**

EVELYN C. LEE
MARY A. GANDESBERY

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-2786
Facsimile: (415) 973-5520
E-Mail: ECL8@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: October 21, 2016

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I. INTRODUCTION AND SUMMARY

This California Public Utilities Commission (Commission or CPUC) rulemaking was initiated to consider a partnership framework between investor-owned utilities (IOUs) and water agencies to co-fund measures that reduce energy consumption in the supply, treatment, and delivery of water (the “water-energy nexus”). It was amended to include the effect of telecommunications on the nexus, and the role of water and energy utilities in advancing public safety.

On October 5, the Assigned Commissioner issued a ruling (Assigned Commissioner Ruling or ACR) that (1) initiates the “water-energy-communications nexus track,” (2) circulates reports on six workshops conducted within this proceeding and the comments of the Edison Electric Institute, and (3) identifies meta-themes, asks questions, and solicits comments on the workshop reports. PG&E accordingly submits these comments in response to the ACR.

PG&E has participated actively in the previous phases of this OIR and continues to engage in work to demonstrate the quantitative benefits of understanding the water-energy nexus.^{1/} Given the wide range of issues raised by the ACR, PG&E believes it can best contribute

^{1/} In September 2015, the CPUC approved the use of a “Water-Energy Cost Calculator” to ascertain the relative energy savings potential of modifying water supply/treatment/ delivery practices. *Decision Regarding Tools for Calculating the Embedded Energy in Water and Avoided Capacity Cost Associated with Water Savings*; CPUC; September 2015. PG&E is also collaborating with East Bay Municipal Utility District (EBMUD) on a pilot project to evaluate the extent to which customers’

to the record by focusing on three topics: the sharing of data, collaboration between public agencies and utilities, and the need for telecommunications infrastructure to support the development of distributed energy resources (DERs).

II. PG&E'S COMMENTS

A. The Commission Should Adhere to its Adopted Rules for Data Sharing.

The ACR generally asks how water and energy utilities can share customer usage data to promote more efficient water and energy usage. PG&E addresses the “Workshop Report on Establishing A Cloud-Based Water and Energy Data Platform” held at UC Davis on June 9-10, 2016 (ACR Attachment E.)

As PG&E stated at the UC Davis forum, there is no need for additional initiatives or governance processes to enhance access to energy usage data for purposes of leveraging greater collaboration and coordination among energy and water utilities and other stakeholders on water and energy efficiency. The CPUC’s existing data access programs and governance processes already provide a platform for water-energy nexus stakeholders and utilities to share data. In its Decision (D.) 14-05-016 on “Adopting Rules to Provide Access to Energy Usage and Usage Related Data while Protecting Privacy of Personal Data,”^{2/} the CPUC provided a comprehensive energy usage data access program that the energy utilities have implemented. This provided access by researchers, local governments, and other non-utility third parties, while at the same time protecting customer privacy. D.14-05-016 also adopted rules that provided access to energy usage and usage-related data by local government entities, researchers, and state and federal agencies when such access is consistent with state law and Commission procedures that protect the privacy of consumer data.

receipt of water conservation messaging and granular water usage information from EBMUD’s AMI meters can reduce water and associated energy usage. See <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M154/K551/154551293.PDF>.

^{2/} This decision was issued after extensive proceedings in R.08-12-009, “Order Instituting Rulemaking to Consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission’s own Motion to Actively Guide Policy in California’s Development of a Smart Grid System.”

Among other things, D.14-05-016 provides the following:

1. Rules for the provision of data containing “covered information,” including personal information, to the University of California and other nonprofit educational institutions for research purposes as long as the institutions requesting data conform to the processes and requirements set forth in this decision;
2. Requirements that the energy IOUs post the total monthly sum and average of customer electricity and natural gas usage by zip code (when the zip code meets specified aggregation standards) and by customer class, as well as the number of customers in the zip code by customer class (i.e. residential, commercial, industrial, and agricultural) on a quarterly basis;
3. Requirements to make usage-related data accessible to local governments when the data request meets certain requirements on aggregation, anonymization, and restrictions on use and disclosure;
4. A process whereby entities can request energy usage and usage-related data from utilities and receive action on the request and resolution of disputes over access to data; and,
5. The formation of an Energy Data Access Committee to advise the utilities on process improvements and best practices related to data access and help mediate disagreements between the utilities and data requesters.

Thus, D.14-05-016 provides the protocols for flexible energy usage data-sharing from energy utilities to water utilities. Water utilities can share their water usage data with the energy utilities in accordance with similar data-sharing programs that protect the privacy of their customers under their own respective data-governance protocols.

B. The Role of Telecommunications in Enabling the Interconnection and Development of Distributed Energy Resources is Largely Managed through Existing Mechanisms and Programs.

PG&E commends the organizers and participants at the Joint Workshop of the California Public Utilities Commission, the California Office of Emergency Services, and the California Department of Technology, which was held on October 30, 2015 to discuss the potential use of the Federal Connect America Fund (CAF) to build out broadband and telecommunications infrastructure in California's rural and high-cost areas. PG&E responds to questions in the Workshop Report (ACR Attachment D) that are relevant to PG&E's core business.

PG&E recommends that the expansion of broadband telecommunications service in rural areas be planned and executed in collaboration with the energy IOUs. Along with several key industry leaders, PG&E is participating in the October 20, 2016 workshop on "Communications for Optimized Water and Energy Management." PG&E may supplement its comments on the adequacy of the telecommunications infrastructure to support the growth of DERs based on presentations and discussions at this workshop. At this time, PG&E does not believe that a mandatory, standardized internet services tariff for water and energy facilities in the State of California would be effective for several reasons.

PG&E is actively engaging with the agricultural community in order to better understand the extent to which improved communications facilitates growers' access to services. PG&E is currently funding an agricultural market assessment project being conducted by California State University - Fresno and AG H2O known as "Improving Management of Agricultural Energy and Water Use with Access to Improved Data." Key project objectives include: (1) identifying types of information, including SmartMeter data that can assist in improving farmers' management of agricultural energy and water use, and, (2) identifying software and hardware that are available or need to be developed to enhance capabilities for agricultural growers to manage irrigation water and energy use to optimize costs, crop productivity, and environmental sustainability. The final report is targeted for completion in December 2016 and aims to help identify relevant technologies and programs to improve growers' management of water and energy.

Energy communications needs should be addressed in the Commission's ongoing Distribution Resources Plan Proceeding (R.14-08-013). At this time, project-specific resource needs are being handled as part of the individual resource development process. Supply-side energy resources of 1 megawatt (MW) of capacity and above are interconnected to the grid under California Independent System Operator (CAISO)-administered requirements that include communication capabilities. The CAISO is also expanding interconnection opportunities for DERs through its Distributed Energy Resource Provider (DERP) tariff and may assess interconnection issues in its Energy Storage and Distributed Energy Resources (ESDER) stakeholder process with the CPUC's Energy Storage OIR, Track 2 (R. 15-03-011). Internet connectivity and delivery capability is constantly improving and any attempt to impose a statewide internet protocol could result in technologically inadequate and potentially non-cost effective requirements.

It is unnecessary for the CPUC to order a meet-and-confer between energy, water, and telecommunications utilities to ensure forward movement in enabling communications for better water and energy management and optimization. The CPUC's Integrated Resource Plan proceeding, the California Air Resource Board's (CARB's) ongoing consideration of the Greenhouse Gas (GHG) cap and trade program, and CAISO market development processes provide adequate venues for energy suppliers and consumers to make decisions to reduce GHG emissions. There has been no suggestion that telecommunications are a barrier to the reduction in GHG emissions. At the same time, the improvement of communications to all areas within California could provide greater opportunities to develop both grid-connected and behind-the-meter energy resources. The CPUC can continue to monitor the quality and deployment of telecommunications services to all consumers in California on a user and content-neutral basis such that all consumers -- including water and energy utilities -- benefit from internet connectivity and delivery services.

C. Experience with Ongoing Programs May Reveal Opportunities for Increased Collaboration Between Water, Energy, and Telecommunications Utilities.

The ACR asks “How can the CPUC foster greater partnerships between water and energy utilities and leverage different sources of funding to further reduce water loss due to leaks? How might the CPUC better promote water audits, partnerships with agriculture water users, customer side programs and foster partnerships to help conserve water and energy? What types of partnerships might be most useful?”

The Commission may consider the adoption of information collection and data standards for water agencies, such as metering requirements for commercial, industrial, and institutional (CII), agriculture, and residential customers, to strengthen energy and water agency partnerships, as well as the evaluation of energy and water programs across all usage sectors.

PG&E is currently evaluating many water agency partnership program ideas and assessing the relative cost effectiveness of such programs. Water utilities may not follow the same approaches as energy utilities in designing and implementing efficiency programs. The CPUC can continue to support energy IOUs by helping to engage the water utilities and by adopting water savings values and calculations methodologies that are standard practice for water utilities. This guidance will enable the energy IOUs and water utilities to evaluate potential partnership programs.

The CPUC spearheaded the development of the Water-Energy Cost-Effectiveness Calculator (Water-Energy Calculator, *also described above in footnote 2*), in the early stages of this rulemaking largely as a means to facilitate collaboration between water and energy utilities in evaluating water and embedded energy-saving programs. The Water-Energy Calculator is an important tool for targeting and addressing water system leaks and leaks in customer-side equipment, and for equipping water systems and customers with conservation technologies and conservation education. PG&E appreciates the CPUC’s assistance in seeking to effectively operationalize the Water-Energy Calculator. Going forward, the CPUC should provide ongoing

support in implementing the Calculator and enabling effective collaboration between water and energy utilities– and potentially the telecommunications industry– to enable improved conservation techniques throughout the state.

III. CONCLUSION

PG&E hopes that the above comments will assist the Commission in advancing the management of this rulemaking toward an understanding of the water-energy nexus. PG&E appreciates the opportunity to provide these comments and looks forward to working with the CPUC, investor-owned water, energy, and telecommunications utilities, and other stakeholders on these important issues.

Respectfully Submitted,

EVELYN C. LEE
MARY A. GANDESBERY

By: /s/Evelyn C. Lee
EVELYN C. LEE

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-2786
Facsimile: (415) 973-5520
E-Mail: ECL8@pge.com

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